

REMARKS

If entered, claims 1, 2, 5-7, 10-12, 14-24 are all the claims pending in the application.

Claims 3, 4, 8, 9 and 13 have been cancelled herein.

Claims 1-20 have been examined and have been rejected.

Specifically, former claims 1, 2, 4-5, 8-9, and 11-20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Hurd (US Pat. 4,457,422); former Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hurd in view of Blatterman et al (US Pat. 3,939,965); and Claims 6, 7 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hurd in view of British Document 2 184 415 A (Hughes).

Before launching into specifics, Applicants gratefully acknowledge the courtesy and assistance provided by Examiner Deuble during an interview of December 14, 2005 in connection with the outstanding Office action, the proposed filing of a request for continued examination, and regarding informally presented proposed amendments to the claims. During the December 14 interview, Mr. Pound, Mr. Cator and the undersigned representative discussed the origin of the invention and applicable attributes to processing of solid consumptables (foods, vitamin pills, tablets, etc.). In the discussion, several prior art references were discussed including Hurd, Blattner, cited German patent 88 06129, the EPO abstract of Japan 61166405, and British patent 2184415 in connection with a set of proposed amendments to the claims.

As a result of the discussion, it was agreed that as a general proposition, the prior art did not show overlapping conveyor elements commonly driven by the main guide cylinder(s) to achieve the results obtained by the instant invention (non-damaging, orientation preserving, vertical transport of damageable solid objects). Given this general understanding of the invention and using these amendments as a launching point, it was agreed that Applicants would amend the claims by more precisely reciting the overlapping and driving relationship between the respective conveyor elements and the guide/drive cylinder.

Applicants believe that the revisions presented above, satisfy that suggestion. For the reasons set forth below, Applicants respectfully traverse the rejections and request favorable disposition of the application.

Argument

Rejection Under 35 U.S.C. § 102

The August 16, 2005 rejection under 35 U.S.C. § 102 is again based on Hurd (US Pat. 4,457,422). In other words, Hurd is relied on exclusively for describing and showing elements corresponding to each and every limitation recited in each of independent claims 1, 15 and 20 as well as dependant claims 2, 5, 11-12, 14, and 16 and 19, dependant respectively, from one of the independent claims, either directly or serially.

Referring to claim 1, as now amended, Hurd does not anticipate or render that claim unpatentable. Because Hurd does not disclose that the first and second conveyor

elements are in an overlapping relationship and does not disclose or suggest driving the conveyor elements

As noted in the office action, Hurd describes an inlet 104; an outlet 106; a first endless conveying element 96 having a contact surface and configured to transport at least one object along a transportation path from proximate the inlet to proximate the outlet; and securing means 94 for securing the at least one object to the contact surface along a secured portion of the transportation path.

To expedite prosecution of the application, Applicants have amended claim 1, as illustrated above, to more clearly define the claimed "transportation path." Applicants submit that the prior art, in particular Hurd, fails to teach, or even suggest the claimed combination.

The embodiment depicted in Figure 7 of Hurd comprises the teaching relied upon in the Office Action and is now specifically addressed. Hurd discloses a conveyor system for transport of cartons from conveyors disposed at different heights. Hurd employs a pair of spaced, confronting belts 94 and 96 for conveying cartons where each belt is trained over its independent guidance system and driven by distinct, separately powered drive rollers 112 and 122.

As amended, claim 1 affirmatively recites the following limitations neither disclosed nor suggested by Hurd. Those limitations include a main guide element including a generally arcuate perimetric surface delineating a portion of the curvilinear transportation path which serves to drive the first and second overlying conveyor elements. Accordingly, claim 1 recites a novel structure and is patentable

over Hurd (as well as the other prior art of record) and the rejection of claim 1 should be withdrawn.

Claim 2 depends from independent claim 1. Therefore, it incorporates all of the limitations of claim 1 and further recites the dimensional relationship between the cylindrical guide descriptive language such as the transportation path including a vertical component corresponding to the cylinder diameter and its relationship to the heights. Because Hurd does not anticipate or render obvious the invention of claim 1, the additional modifying language contained in claim 2 also recites patentable subject matter.

Claim 5 depends from dependant claim 1 and further defines the invention as possessing a second main guide element and a serpentine transportation path and vertical displacement between the inlet and outlet. The invention of claim 5 presents a novel structure and is patentable over the prior art of record, including Hurd for no less reason than its dependence on independent claim 1.

Dependant claim 6 and claim 7 recite a specified spatial relationship of the respective components comprising the invention of claim 5. Like claim 5, these further dependant claims recite novel and inventive structures and so are entitled to allowance.

Dependant claims 10, 11, 12, 13, 14, and 16 are likewise patentable over the prior art of record at least by virtue of their direct or indirect dependence on independent claim 1 and by reciting the dimensional limitations associated with the main guide roller, by reciting the additional limitations of a drive system, and by delineating sterilizability.

Rejection Under 35 U.S.C. § 103

The Examiner rejected claims 6, 7 and 10 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,457,422 to Hurd in view of British Document GB2184415.

Applicants have amended claim 1 and the claims dependant therefrom so that all now affirmatively recite and make more apparent the differences between the claimed invention and the prior art. Applicants respectfully submit that the now amended pending claims 6, 7, and 10 are patentable over the art of record, and are otherwise in condition for allowance.

The details of Hurd are disclosed above. The British reference was cited for teaching the substitution of multiple rollers for a single cylindrical roller. In that context, the conveying elements are not driven by the cylinder and are not in contact with the drive/guide cylinder so as to minimize bending force imparted on the conveyed objects.

Independent claim 15, as amended, is believed to be patentable over the prior art at least because Hurd does not teach or suggest sterilizable unitary conveying elements driven by an associated guide roller in the stated combination for the stated functions. Accordingly, the subject matter of claim 15 is patentably distinguished from the disclosure of Hurd and the other cited prior are and the rejection of claim 15 should be withdrawn.

Independent Claim 20 is a means-plus- function claim that incorporates limitations such as the overlapping of the means for conveying and means for securing

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over the curvilinear transportation path driven by the curvilinear path conveying means.

(See, e.g., paragraph 22 of the specification.)

New Claims 21-24

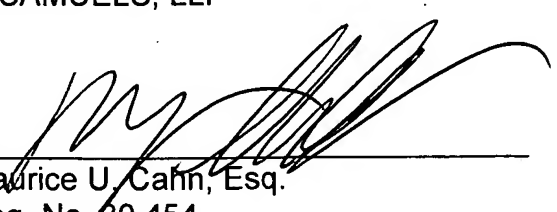
New claims 21- 24 are fully supported by the disclosure in the specification and have been presented in response to the dialog during the December 14, 2005 interview referred to above. These claims are presented for examination and are believed to be allowable over the prior art of record consistent with the discussion. Entry of and favorable action thereon are solicited.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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